

Fifth-Graders Make a Difference Across California

"Every Little Bit Makes a BIG Difference!"

Jiminy, Official Environmentality Spokescricket

Ever wonder what it takes to make a difference in someone's life? David Neubacher, fifth grade teacher at El Verano Elementary School in Sonoma, California knows exactly what it takes. David and his fifth-grade students accepted Jiminy Cricket's Environmentality Challenge, created class projects worthy of statewide recognition, and advanced to the winner's circle two years in a row!

In 1996 his class received top honors for their project focusing on volunteerism and wildfire restoration at Point Reyes National Park. The following year, David's class chose to continue the efforts begun by their predecessors as well as leading a research and cleanup effort at a local wildflower preserve. Each time they were judged by a distinguished panel of environmental educators, scientists, and environmental leaders throughout the state of California. The State of California's Environmental Education Interagency Network (CEEIN) selected them as the Grand Prize winner. As the winner, these lucky environmentalists won an all-expense paid class field trip to Disneyland Park, and were honored with a parade down Main Street!



So what exactly is the Jiminy Cricket Environmentality Challenge? It starts with the word "environmentality"—thinking and acting environmentally at school, at home, and in the community. The program gives fifth-grade classes an opportunity to "think green" and take responsible action to restore, preserve, and care for our environment.

The Challenge consists of two parts—the Pledge and the Class Project Competition. The teacher and students choose the level of participation. The Pledge takes a small commitment, while the Competition entails a more comprehensive group project. Awards are given to everyone who participates.

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Reusable School News is published by the Integrated Waste Management Board (IWMB), the agency responsible for overseeing the development and implementation of a statewide integrated waste management program. The Board provides technical assistance and resource information to school districts in developing waste prevention and recycling programs. The News highlights case studies showcasing the economic and environmental benefits of establishing a district-wide waste reduction program. It is being sent to local governments, school districts, schools and other interested parties. For more information, call the Public Education & Assistance (Schools) Section at (916) 255-2385.

Earth Resources—A Case Study: Oil!

Don't miss out! Science teachers throughout the state will soon have the opportunity to participate in an engaging, hands-on workshop to learn how to effectively implement a brand-new, standards-based curriculum. Especially designed for 9th and 10th grade integrate/coordinated science students, *Earth Resources—A Case Study: Oil* weaves concepts from Earth science, biology, chemistry, and physics around a central theme that is related directly to the lives of students, particularly those who are learning how to drive. It enables students to explore the scientific concepts and environmental issues associated with the processing, use, disposal, and conservation of natural resources, using a case study of motor oil.

Thanks to funding from the Integrated Waste Management Board, teachers attending this hands-on workshop will receive a free curriculum, along with a supplemental resource kit containing

educational videos, colorful posters, informative booklets, and a variety of lab materials that are used in the student investigations. The curriculum was developed with funding from the Waste Board and with support from the California Department of Education and the California Scope, Sequence and Coordination Project.

Earth Resources features 18 inquiry-based lessons that connect to students' prior knowledge while facilitating hands-on learning of new information and application of concepts. The lessons were crafted and field-tested by science teachers throughout California to actively engage all students.

The *Earth Resources* curriculum workshops are just around the corner! For information on workshop dates and locations, contact your K-12 Alliance hub staff developer, or contact *Earth Resources* Project Director Brenda Hamilton at (916) 278-4498.



The Science Behind Recycling... A Look at Recycling and Environmental Education

It is often said that what goes around comes around. Regardless of whether the "originator" was referring to a boomerang or a merry-go-round, the reference certainly applies to recycling. If purchased items are discarded, they don't go anywhere, much less "around." But when recycling is an option, what goes around comes around as a new product.

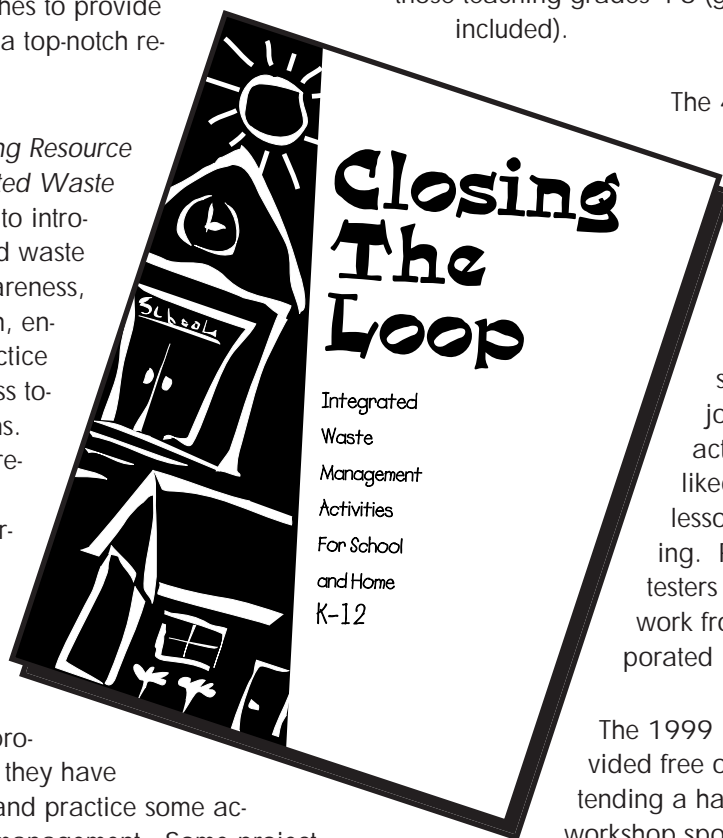
This applies to paper, steel, aluminum, glass, and plastic, as well as other materials—depending on where you live. And for steel, which you'll find in food cans, appliances, cars, bridges, buildings and houses, the saying is especially true. All new steel contains recycled steel because "old" steel is the main ingredient in the steel making process.

By now, most of us know how we can recycle steel cans and other containers from the home, but we're not so sure about what to do in school. Well, for steel, it's relatively simple. You won't find steel cans in the classroom or the playground, but they are used in abundance in food service operations, such as the school cafeteria kitchen. You can help encourage the food service providers to recycle steel cans and other materials from the kitchen by suggesting that they call 1-800-YES-1-CAN (937-1226) to request a brochure on how to recycle steel cans. This phone number is the hotline for the Steel Recycling Institute (SRI). Or provide them with SRI's Web site address: www.recycle-steel.org.

Closing the Loop: New and Improved!

The 1999 edition of the Integrated Waste Management Board's curriculum, *Closing the Loop*, is now available. This revision entailed a three-year cooperative effort between a group of educators that included teachers, technical advisors from both public and private entities, representatives from the Integrated Waste Management Board, and staff from the California Department of Education. The revision was designed to update the technical concepts and instructional approaches to provide California educators with a top-notch resource.

Closing the Loop: Exploring Resource Conservation and Integrated Waste Management is designed to introduce students to integrated waste management through awareness, understanding, and action, encouraging students to practice some solutions that address today's solid waste problems. The lessons focus on awareness of natural resources and understanding of alternatives to burying waste through reducing, reusing, and recycling to conserve natural resources and extend the life of landfills. Through projects, students apply what they have learned in the classroom and practice some actions in integrated waste management. Some project-based lessons are service-learning oriented, where students participate in improving the environment in their school and community and have opportunities to educate others about what they have learned.



- Develop concepts (main ideas) for each lesson.
- Select children's literature, reference books, and videos to support the CTL lessons.
- Include project-based learning.

In addition, the 1999 edition is easier to use in the classroom with the lessons now separated into two modules: one for teachers teaching K-3 and one for those teaching grades 4-6 (grades 7-12 are no longer included).

The 49 teachers throughout California who field-tested the lessons in the revised version of *Closing the Loop* have said that the lessons are easy to implement, are very hands-on, and their students thoroughly enjoyed participating in the activities. They especially liked the project-based lessons and the journal writing. Recommendations by field testers and examples of students' work from field testers were incorporated into the revised lessons.

The 1999 *Closing the Loop* is provided free of charge to teachers attending a hands-on, interactive workshop sponsored by the Integrated Waste Management Board.

The main goals for the 1999 Closing the Loop (CTL) edition were:

- To revise the original CTL lessons to make them more applicable to California's content standards and curriculum frameworks.
- Provide additional lessons in integrated waste management (especially for K-3 teachers).

If you are interested in obtaining this revised curriculum to use in your classroom, contact the staff at the Integrated Waste Management Board, Public Education Section by calling (916) 255-2385.

"Generation Earth"—A Call to Action

Los Angeles County has come up with an innovative way to help divert garbage from its landfills—now and into the future! The county's Department of Public Works contracted TreePeople to implement a new secondary student environmental education program, targeting grades 7 through 12.

The countywide educational program is called "Generation Earth" and uses a top-down, bottom-up approach to target the teen audience. This approach uses environmental education to help students change deep-seated attitudes toward natural resources and consumption. Generation Earth instills an integrated understanding of the overall environmental picture so teens can make their own intelligent judgement calls, and willingly alter their habits and behaviors.

To create Generation Earth, TreePeople took a step back and looked at where teenagers were emotionally and developmentally. Using the latest information from teen product marketing research, they looked at what motivates teens and how to reach this market. A baseline study from the UCLA School of Education was used to check the environmental knowledge and awareness of teens and what influences them.

The entire program is designed from the teen perspective. TreePeople worked with the educational community to create a myriad of educational elements, guaranteeing that our strategies and objectives are aligned with the academic framework of the California Department of Education. The Generation Earth program truly meets the needs of local schools and teachers.

The educational elements include in-classroom system activities, student action kits de-

signed to assist students in taking action on campus or at home, inter-school waste reduction competition, and an airwaves campaign consisting of environmental messages on the top teen radio stations. In addition, six youth environmental conferences were held across the county.

More than 5,500,000 student contacts were made in the past year, both on and off campus, to create multiple contacts with teens and to reinforce educational learning objectives. Other educational activities included development of a Web site, an environmental monitoring activity, and a toll free hotline to provide teens with more information on environmental issues. The most recent tool developed is a 13-minute film "ReThink," using the music of Pearl Jam to deliver an environmental message designed to touch the hearts of urban teens. Most recently, the Generation Earth program was awarded a Silver Award for Excellence by the Solid Waste Association of North America.



The County of Los Angeles Board of Supervisors has adopted a County Solid Waste Management Plan to meet the growing challenge of planning for waste disposal needs.

This action plan set the stage for regional efforts to meet California's solid waste reduction requirements to divert 50 percent of the county's waste from landfills by the year 2000. Generation Earth is one way the county can put its plan into action.

For more information, please contact Abby Ybarra, Director of Secondary Education, (818) 623-4840.

Waste Board Provides Teachers with Revised Compendium

Selecting top-quality environmental education curricula isn't always easy. The California Department of Education (CDE) was aware of the dilemma that teachers face searching for good environmental educational instructional materials that are technically accurate and meet State education standards. That is why CDE, in partnership with State environmental agencies, created the environmental education compendia. There are six compendia on the topics of water, air, energy, human communities, natural communities, and integrated waste management.

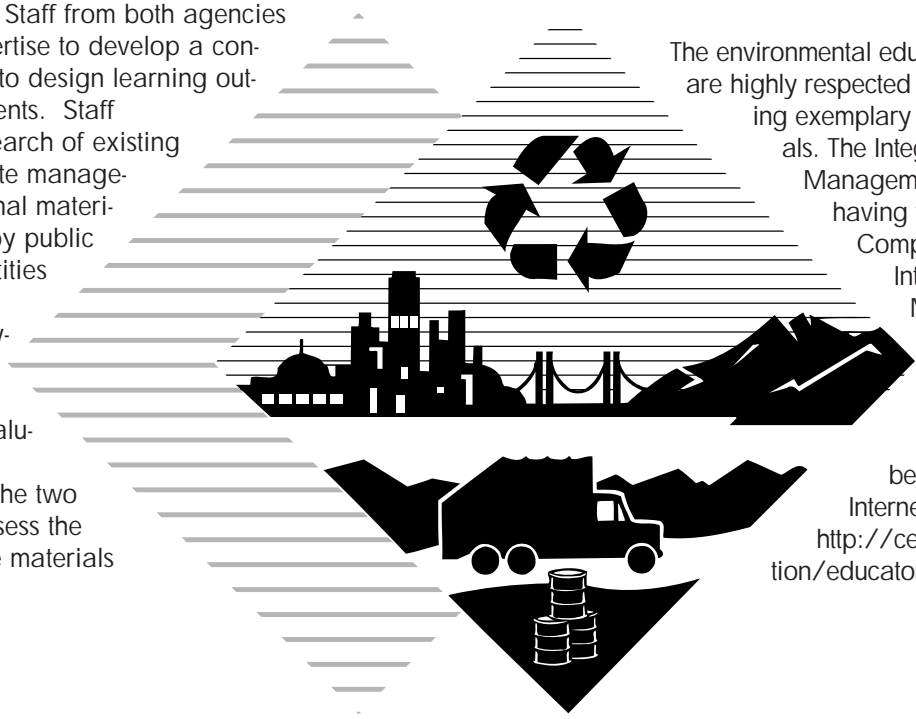
In 1993, the IWMB, with CDE, published the first *Curriculum Compendium for Integrated Waste Management*. Staff from both agencies used their expertise to develop a conceptual matrix to design learning outcomes for students. Staff conducted a search of existing integrated waste management instructional materials published by public and private entities throughout the nation. Twenty-four top California educators used evaluation criteria developed by the two agencies to assess the quality of these materials

against California education standards. The evaluation process, assessment tool, and significant findings are published in the compendium.

Since 1993, many curricula have been updated or revised, and many new curricula have been published. In order to provide the most up-to-date information to California educators, the IWMB has embarked on a compendium revision project. The revised compendium will be a compilation of the newest information profiling top quality curricula on the topics of integrated waste management and used oil, using the same strategy that was employed in the previous compendium project

The environmental educational compendia are highly respected resources for selecting exemplary instructional materials. The Integrated Waste Management Board anticipates having the revised Compendium for Integrated Waste Management ready for distribution by winter of 1999.

All compendia can be found through the Internet at:
http://ceres.ca.gov/education/educators/nat_sci.html.



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2 Northeastern	David Klasson	(530) 245-7821
3 Sacramento	(in development)	
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	Julie Schardt	(209) 953-4245
	Melissa Aronson	(209) 525-5120
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La Mesa-Spring Valley School District Nets \$116,557 From Recycling

Saving money isn't the only reason for students, staff, and parents in the La Mesa-Spring Valley School District to recycle just about everything possible from its 23 school sites and administrative and operations centers. Environmental responsibility motivates K-8th graders, as well as their teachers and parents. Yet, if bringing funds into the individual schools as well as the district's general fund is a result of La Mesa-Spring Valley's comprehensive recycling efforts, then everyone wins!

Over the past eight years La Mesa-Spring Valley School District has been involved in a comprehensive district-wide recycling program that involves students, staff, and parents. Since May 1997 Project DIVERT has been funded by a grant from the California Department of Conservation. Project DIVERT (District Involvement Via Everyone Recycling Trash) focuses on educating the district's students, staff, and parents on the topics of environmental awareness and responsibility and, at the same time, involves them in the hands-on practices of recycling, reuse, and reduction on a daily basis.

The district's comprehensive recycling/educational awareness program is organized into three components:

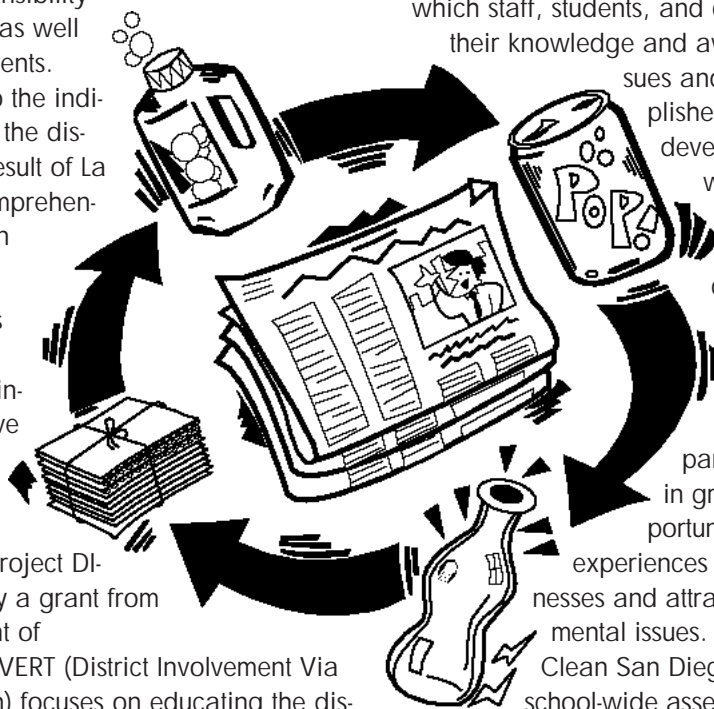
Component I: Collection/Diversion focuses on the full-scale programs of recycling paper, cardboard, polystyrene lunch trays, aluminum and plastic beverage containers, and landscaping materials from all district school sites. The district's operations center also recycles metals, tires, vehicle batteries, cardboard, oil, oil filters, Freon, antifreeze, firewood, paper beverage containers, school furniture, and appliances. Over one school year, the district recycled over 190 tons of material, not including 1,275 cubic yards of polystyrene trays and unknown weights of furniture and appliances.

Overall, through this component of the program, the district produced a net savings/income of \$116,577 in this one-year period.

Component II: Education is the process through which staff, students, and community members increase their knowledge and awareness of environmental issues and practices. This is accomplished through providing staff development workshops. At these workshops teachers share ideas and strategies on how to increase school recycling and are introduced to related environmental curricula, such as the Integrated Waste Management Board's Closing the Loop. As part of Project DIVERT, students in grades K-8 also have the opportunity to supplement their school experiences with field trips to local businesses and attractions that focus on environmental issues. Furthermore, the "I Love A Clean San Diego" organization provides school-wide assemblies that focus on recycling and environmental responsibility. Partnerships with local companies such as EDCO and Western Tree Service have supported an annual district-wide "Art of Recycling" student art contest.

Component III: Community Outreach highlights the efforts of the district to model, present, demonstrate, and consult with interested community members, organizations, and school districts to share Project DIVERT's successes so that others may replicate or adapt the program to fit their needs.

When project funding ends it is certain that the district will continue many of the program's activities. Attitudes and behavior of students, staff, and parents have changed, and recycling and environmental awareness have become a way of life! A project and video are available to provide more information about Project DIVERT. Contact Linda Cole, Project Resource Teacher, at (619) 668-5760.



Fifth-Graders Make Difference *(continued from page 1)*

David and his El Verano fifth-grade classes chose to tackle the Competition. By project's completion, they had learned about habitat restoration, solid waste, endangered species, and how to educate the public about environmental issues. David is most proud of the fact that the students developed a strong sense of belonging and importance.

"These projects helped the children establish a strong work ethic, personal pride in themselves, and an appreciation for the world we live in," said David. "This concerted team effort has caused my students to accomplish great things!"

Class projects are diversified and cover a wide range of ideas. Last year's winner, Mary Gifford's class from Vicentia Elementary in Riverside County, focused their efforts on the Santa Ana River and the challenges it faces from an infestation by a non-native plant, *Arundo donax*.

The very first winning class, guided by teacher Jane Rowland at Redway Elementary in Humboldt County, developed, produced, and sold environmentally themed coloring books. The money raised was used to purchase recycle bins, and the students helped initiate the first recycling program at their local State parks.

Jiminy Cricket's Environmentality Challenge is the result of a unique partnership between The Walt Disney Company and CEEIN. Key members include representatives from the California Department of Education, the departments, boards and commissions of the California Environmental Protection Agency, and the California Resources Agency.

With teachers like David, Jane, Mary, and the other 1,630 teachers across California, participating in the program is certain to affect fifth-graders in a way that will help them remember to care about our earth for the rest of their lives. David quotes one of his students summarizing her thoughts on the completion of Jiminy Cricket's Environmentality Challenge:

"We planted thousands of seeds in the earth this year and they will grow, but so will the seeds we've planted in people's minds and in their hearts!"

Now that's making a difference!

For further information about Jiminy Cricket's Environmentality Challenge contact the hotline at (800) 290-0299. Request educational curriculum materials from the State of California through CEEIN's Web site (<http://ceres.ca.gov/education/ceein>).

The Integrated Waste Management Board (IWMB) does not discriminate on the basis of disability in access to its programs. IWMB publications are available in accessible formats upon request by calling the Public Affairs Office at (916) 255-2296. Persons with hearing impairments can reach the IWMB through the California Relay Service, 1-800-735-2929.



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